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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,050	06/04/2002	Hai-Jui Lin	AVIP0024USA	9788

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EXAMINER	
THOMPSON, JAMES A	
ART UNIT	PAPER NUMBER
2625	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	02/27/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 02/27/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

winstonhsu@naipo.com

Office Action Summary	Application No.	Applicant(s)	
	10/064,050	LIN ET AL.	
	Examiner	Art Unit	
	James A. Thompson	2625	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 November 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-8 and 10-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-8 and 10-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 14 November 2006 has been entered.

Response to Arguments

2. Applicant's arguments filed 14 November 2006 have been fully considered but they are not persuasive. Firstly, Orito (US Patent 6,072,912) performs corrections based on the fact that the individual CCDs do not all provide the same tone values even when detecting the same tone (column 1, lines 60-62 of Orito). Thus, tone correction data for each CCD is obtained based on the results of scanning. Secondly, Applicant's arguments with respect to a plane light source are based on the present amendments to the claims. Additional prior art has been discovered which renders the presently amended claims obvious to one of ordinary skill in the art at the time of the invention. Accordingly, new prior art rejections are set forth below.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 3-8 and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Orito (US Patent 6,072,912) in view of Toyofuku (US Patent 5,289,000) and Fujimiya (US Patent 5,953,133).

Regarding claim 1: Orito discloses:

- projecting light on a transparent platform of a scanner (figure 4 and column 5, lines 41-45 of Orito).

- generating a plurality of calibration signals at a plurality of positions respectively (figures 8-9; column 8, lines 48-55; column 8, line 62 to column 9, line 2; and column 9, lines 39-45 of Orito).
- placing the document on the transparent platform (column 5, lines 22-31 of Orito). The original transporting mechanism (figure 4(40) of Orito) places the document on transparent platform. Otherwise, it would not be possible to read the image data.
- moving the document along the length of the transparent platform for obtaining an image of the document (column 5, lines 22-31 of Orito), wherein the scanning module generates a plurality of scan signals at the plurality of positions respectively (column 8, lines 24-35 of Orito).
- compensating the plurality of scan signals with the plurality of calibration signals respectively (column 9, lines 37-43 of Orito).

Orito does not disclose expressly projecting *plane* light source; moving a scanning module of the scanner along a length of the transparent platform for sensing the light; that the scanning module is moved for obtaining an image of the document, rather than the document being moved.

Toyofuku discloses:

- a transparent platform that is positioned on the housing (figure 1(22) and column 7, lines 37-41 of Toyofuku).
- moving a scanning module (figure 1(31) of Toyofuku) of a scanner along a length of the transparent platform for sensing the light (column 12, lines 3-16 of Toyofuku).
- moving the scanning module for obtaining an image of the document (column 12, lines 3-16 of Toyofuku).

Orito and Toyofuku are combinable because they are from the same field of endeavor, namely the procuring of digital image data through the high-quality digital scanning of hardcopy documents. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to perform the method of scanned image data correction taught by Orito using the specific scanner taught by Toyofuku, thus moving the scanning module rather than the document in order to digitally scan the document. The motivation for doing so would have been that a scanner physically designed in the specific manner in which the scanner of Toyofuku is designed to be capable of reading transparencies (column 1, lines 9-18 of Toyofuku), which would generally be recognized to be desirable since this increases the overall functionality of the device. Therefore, it would have been obvious to combine Toyofuku with Orito.

Orito in view of Toyofuku does not disclose expressly projecting *plane* light source.

Fujimiya discloses a document scanner which projects a plane light source (column 7, lines 26-47 of Fujimiya).

Orito in view of Toyofuku is combinable with Fujimiya because they are from the same field of endeavor, namely the procuring of digital image data through the high-quality digital scanning of hardcopy documents. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to specifically project a *plane* light source, as taught by Fujimiya. The suggestion for doing so would have been that a plane light source provides uniform illumination, thus simplifying the tone data correction of the system of Orito in view of Toyofuku. Therefore, it would have been obvious to combine Fujimiya with Orito in view of Toyofuku to obtain the invention as specified in claim 1.

Regarding claim 3: Orito discloses amplifying the scan signal by a correction factor ($FF(hex)/(W(n)-B(n))$) when the scan signal is weaker than a standard value (column 9, lines 34-43 of Orito). If correction is performed such that $FF(hex)/(W(n)-B(n))$ is greater than 1, then $FF(hex)/(W(n)-B(n))$ is an amplification value.

Regarding claim 4: Orito discloses attenuating the scan signal by a correction factor ($FF(hex)/(W(n)-B(n))$) when the scan signal is stronger that a standard value (column 9, lines 34-43 of Orito). If correction is performed such that $FF(hex)/(W(n)-B(n))$ is less than 1, then $FF(hex)/(W(n)-B(n))$ is an attenuating value.

Regarding claim 5: Orito discloses recording the calibration signals (column 7, lines 58-60 and column 8, lines 11-13 of Orito).

Regarding claim 6: Orito discloses:

- the scanning module comprises a plurality of sensors for sensing the light (column 5, lines 48-52 of Orito), each of the scan signals comprises a plurality of pixel-scan-signals generated from the sensors (column 5, lines 52-62 of Orito).
- amplifying each of the pixel-scan-signals with a corresponding correction factor ($FF(hex)/(W(n)-B(n))$) when the pixel-scan-signal is weaker than a standard value (column 9, lines 34-43 of Orito). If correction is performed such that $FF(hex)/(W(n)-B(n))$ is greater than 1, then $FF(hex)/(W(n)-B(n))$ is an amplification value.
- attenuating each of the pixel-scan-signals with the corresponding correction factor ($FF(hex)/(W(n)-B(n))$) when the pixel-scan-signal is stronger than the standard value (column 9, lines 34-43 of Orito). If correction is performed such that $FF(hex)/(W(n)-B(n))$ is less than 1, then $FF(hex)/(W(n)-B(n))$ is an attenuating value.

Regarding claim 7: Orito discloses:

- generating a plurality of pixel calibration signals from the sensors when no document is placed on the transparent platform (column 7, lines 41-52 of Orito).
- comparing each of the pixel calibration signals with the standard value to determine corresponding correction factor ($FF(hex)/(W(n)-B(n))$) for each of the pixel scan signals (column 9, lines 26-43 of Orito).

Regarding claim 8: Orito discloses a scanner (figure 4 of Orito) comprising:

- a transparent platform (figure 4(below 43) of Orito) positioned within a housing of the scanner (figure 4(31) and column 5, lines 16-19 of Orito) for placing a document thereon (column 5, lines 41-48 of Orito). A transparent platform, while not specifically mentioned, is inherently within the housing and is used to place the document thereon since, without some form of platform, there is nothing upon which the document can rest and be scanned and, if said platform is not transparent, the light generated by the irradiation lamp cannot pass through said platform to be reflected by the mirror and read by the image sensor (column 5, lines 41-48 of Orito).
- a light source (figure 4(52) of Orito) positioned on one side of the transparent platform (as clearly seen in figure 4 of Orito) for projecting light on the transparent platform (column 5, lines 41-45 of Orito).
- a scanning module (figure 4(54) of Orito) for sensing the light and generating a scan signal (column 5, lines 45-55 of Orito) and a calibration signal at each of a plurality of positions (figure 8 and column 7, lines 48-58 of Orito), wherein the scanning module generates the plurality of calibration signals when no document is placed on the transparent platform (column 7, lines 41-50 of Orito) and the plurality of scan signals when the document is placed on the platform (column 9, lines 59-65 of Orito).
- a processing circuit (figure 5(71) of Orito) for controlling the operation of the scanner, wherein the processing circuit compensates the plurality of scan signals with the plurality of calibration signals respectively (column 9, lines 39-45 and lines 53-65 of Orito).

Orito does not disclose expressly that said transparent platform is positioned *on* the housing; that said light source is specifically a *plane* light source; that said scanning module is movably disposed on the other side of the transparent platform; and that said scanning module moves along the length of the transparent platform.

Toyofuku discloses:

- a transparent platform positioned on the housing (figure 1(22) and column 7, lines 37-41 of Toyofuku).
- a scanning module movably disposed on the side of the transparent platform opposite the light source (figure 1(102 – light source); figure 1(31 – scanning module); column 7, lines 41-43; and column 11, lines 40-44 of Toyofuku).
- said scanning module moves along the length of the transparent platform (column 12, lines 3-17 of Toyofuku).

Orito and Toyofuku are combinable because they are from the same field of endeavor, namely the procuring of digital image data through the high-quality digital scanning of hardcopy documents. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to perform the method of scanned image data correction taught by Orito using the specific scanner taught by Toyofuku. Furthermore, by this combination, the calibration signal generated at a plurality of positions, which is taught by Orito, would be generated from the scanning module moving to said plurality of positions, as taught by Toyofuku. The motivation for doing so would have been that a scanner physically designed in the specific manner in which the scanner of Toyofuku is designed to be capable of reading transparencies (column 1, lines 9-18 of Toyofuku), which would generally be recognized to be desirable since this increases the overall functionality of the device. Therefore, it would have been obvious to combine Toyofuku with Orito.

Orito in view of Toyofuku does not disclose expressly that said light source is specifically a *plane* light source.

Fujimiya discloses a document scanner which projects a plane light source (column 7, lines 26-47 of Fujimiya).

Orito in view of Toyofuku is combinable with Fujimiya because they are from the same field of endeavor, namely the procuring of digital image data through the high-quality digital scanning of hardcopy documents. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to specifically use a *plane* light source, as taught by Fujimiya. The suggestion for doing so would have been that a plane light source provides uniform illumination, thus simplifying the tone data correction of the system of Orito in view of Toyofuku. Therefore, it would have been obvious to combine Fujimiya with Orito in view of Toyofuku to obtain the invention as specified in claim 8.

Regarding claim 10: Orito discloses that the processing circuit amplifies the scan signal by a correction factor ($FF(hex)/(W(n)-B(n))$) when the scan signal is weaker than a standard value (column 9, lines 34-43 of Orito). If correction is performed such that $FF(hex)/(W(n)-B(n))$ is greater than 1, then $FF(hex)/(W(n)-B(n))$ is an amplification value.

Regarding claim 11: Orito discloses that the processing circuit attenuates the scan signal by a correction factor ($FF(hex)/(W(n)-B(n))$) when the scan signal is stronger that a standard value (column 9, lines 34-43 of Orito). If correction is performed such that $FF(hex)/(W(n)-B(n))$ is less than 1, then $FF(hex)/(W(n)-B(n))$ is a decaying value.

Regarding claim 12: Orito discloses a recording circuit (figure 5(73) of Orito) for storing the calibration signals (column 7, lines 58-60 and column 8, lines 11-13 of Orito).

Regarding claim 13: Orito discloses that the scanner (figure 1(30) of Orito) is connected to a computer (figure 1(10) of Orito), and the calibration signals are stored in the computer (column 7, lines 11-16 of Orito).

Regarding claim 14: Orito discloses that the scanning module comprises a plurality of sensors (column 5, lines 48-52 of Orito) for sensing the light and each generating a corresponding pixel-scan-signal, the scan signal comprising a plurality of pixel-scan-signals generated from the sensors (column 5, lines 52-62 of Orito), and the processing circuit amplifies or attenuates the pixel-scan-signals with corresponding correction factors ($FF(hex)/(W(n)-B(n))$ for each n) (column 9, lines 34-43 of Orito). If correction is performed such that $FF(hex)/(W(n)-B(n))$ is greater than 1, then $FF(hex)/(W(n)-B(n))$ is an amplification value. If correction is performed such that $FF(hex)/(W(n)-B(n))$ is less than 1, then $FF(hex)/(W(n)-B(n))$ is a decaying value.

Regarding claim 15: Orito discloses that the calibration signal comprises a plurality of pixel-calibration-signals (column 9, lines 26-43 of Orito); each sensor generates a corresponding pixel-calibration-signal when no document is placed on the transparent platform (column 7, lines 41-52 of Orito); and the processing circuit compares each of the pixel-calibration-signals with the standard value to determine the correction factor ($FF(hex)/(W(n)-B(n))$) for each of the pixel-scan-signals (column 9, lines 34-43 of Orito).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Thompson whose telephone number is 571-272-7441. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

James A. Thompson
Examiner
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17 February 2007

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